

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A lithographic apparatus comprising:
an illumination system configured to provide a beam of radiation;
a support structure configured to hold a patterning device, the patterning device configured to impart the beam with a pattern in its cross-section;
a substrate table configured to hold a substrate, the substrate table comprising:
a plate comprising a plurality of burls, a density of the burls being higher in a peripheral portion of the substrate than in a medial portion thereof, and
a port configured to exhaust a ~~fluid~~ as gas and a liquid and to establish a pressure differential across the substrate held on the plate, the pressure differential being greater in the peripheral portion of the substrate than in the medial portion of the substrate;
a projection system configured to project the patterned beam onto a target portion of the substrate; and
a liquid supply system configured to supply a liquid to a space between the projection system and the substrate.
2. (Original) Apparatus according to claim 1, wherein the ratio of the density of burls in the peripheral portion to the density of burls in the medial portion is substantially equal to the ratio of the pressure differentials in these portions during use of the apparatus.
3. (Original) Apparatus according to claim 1, wherein the burls in the peripheral and medial portions are all of substantially the same nominal size but the number per unit area is greater in the peripheral portion.
4. (Original) Apparatus according to claim 1, wherein the cross-sectional area of the burls is greater in the peripheral portion.
5. (Currently amended) Apparatus according to claim 1, wherein the peripheral portion is a substantially annular region extending inward of the outer periphery of the substrate and has a width in the range of from 5% to 20% of the radius of the substrate.

6. (Cancelled)
7. (Original) Apparatus according to claim 1, wherein the burl plate has an upstanding wall separating the peripheral portion from the medial portion.
8. (Cancelled)
9. (Cancelled)
10. (Original) Apparatus according to claim 1, comprising a gas inlet under the medial portion of the substrate to provide a flow of gas under the substrate outward from the medial portion towards the peripheral portion.
11. (Currently amended) A device manufacturing method comprising:
holding a substrate on a burl plate by a pressure differential across it, the pressure differential being greater in a peripheral portion of the substrate than in a medial portion thereof, and the density of burls on the burl plate being higher in the peripheral portion than in the medial portion;
exhausting a liquid from between the substrate and the burl plate; and
projecting a patterned beam of radiation through a liquid onto a target portion of the substrate.
12. (Original) Method according to claim 11, wherein the ratio of the density of burls in the peripheral portion to the density of burls in the medial portion is substantially equal to the ratio of the pressure differentials in these portions during use of the method.
13. (Original) Method according to claim 11, comprising providing a gas flow under the substrate outward from the medial portion towards the peripheral portion.
14. (Currently amended) A burl plate for use in a lithographic projection apparatus in which a high-refractive index liquid is supplied to a space between a projection system of the lithographic projection apparatus and a substrate held on a substrate table of the lithographic

apparatus, wherein the density of burls in a peripheral portion of the burl plate is higher than in a medial portion thereof, and wherein the burl plate is configured to permit leakage of a liquid into a space between the burl plate and the substrate.

15. (Original) Burl plate according to claim 14, wherein the ratio of the density of burls in the peripheral portion to the density of burls in the medial portion is substantially equal to the ratio of the pressure differentials in these portions during use of the lithographic projection apparatus.

16. (Original) Burl plate according to claim 14, wherein the burls in the peripheral and medial portions are all of substantially the same nominal size but the number per unit area is greater in the peripheral portion.

17. (Original) Burl plate according to claim 14, wherein the cross-sectional area of the burls is greater in the peripheral portion.

18. (Currently amended) Burl plate according to claim 14, wherein the peripheral portion is a substantially annular region extending inward of the outer periphery of the substrate and has a width in the range of from 5% to 20% of the radius of the substrate.

19. (Cancelled)

20. (Original) Burl plate according to claim 14, wherein the burl plate has an upstanding wall separating the peripheral portion from the medial portion.

21. (Cancelled)

22. (Cancelled)

23. (New) Method according to claim 11, wherein the cross-sectional area of the burls is greater in the peripheral portion.

24. (New) Method according to claim 11, wherein the burl plate has an upstanding wall separating the peripheral portion from the medial portion.

25. (New) Apparatus according to claim 1, wherein the plate comprises a first surface configured to face the substrate and a second surface opposite the first surface, each of the first and second surfaces having burls disposed thereon.

26. (New) Apparatus according to claim 25, wherein the plate further comprises an aperture extending between the first surface and the second surface to equalize pressure on each side of the plate.

27. (New) Method according to claim 11, the burl plate comprising a first surface configured to face the substrate and a second surface opposite the first surface, each of the first and second surfaces having burls disposed thereon.

28. (New) Method according to claim 27, comprising equalizing pressure on each side of the burl plate through an aperture extending between the first surface and the second surface.

29. (New) Burl plate according to claim 14, wherein the burl plate comprises a first surface configured to face the substrate and a second surface opposite the first surface, each of the first and second surfaces having burls disposed thereon.

30. (New) Burl plate according to claim 29, wherein the burl plate further comprises an aperture extending between the first surface and the second surface to equalize pressure on each side of the plate.